Eat Smart Be Smart

Delicious Dairy

- **Grade Level:** Second **Lesson Time:** 30 minutes
- **Integrated Core Subjects:** Math, Health Enhancement
- **Montana Content Standard:** Math Standard 2: Students demonstrate understanding of and an ability to use numbers and operations.
- **Montana Content Standard:** Health Enhancement 1: Students have a basic knowledge and understanding of concepts that promote comprehensive health.
- **Objectives:** Students will identify foods from the dairy group and investigate the amount of fat in different types of milk.

Lesson/Activity *Address any food allergies or intolerances before doing this lesson.*

1. Explain to the students that they will be reviewing foods from the dairy group and point out this group on the MyPlate poster. Distribute the Where's The Dairy? Work sheet and ask them to complete the work sheet using the directions. Give them a hint: There are 22 dairy foods hidden in the picture.
2. Ask the students if they know why dairy foods are so important to their bodies. Answers include building strong bones, teeth, and growing bodies; that there are three key nutrients found in milk: calcium, vitamin D and protein. These nutrients help build strong bones and teeth.
3. In the front of the room display the four containers of milk along with the other pictures or labels of foods from the dairy group and ask the students to repeat the name of the foods with you. Explain that they need to eat or drink three servings of dairy foods each day. Ask the students if they have seen the "3-A-Day" logo or heard the slogan on television. More information can be found at http://www.3aday.org.
4. Have the students write a daily plan in their health journals to obtain the "3-A-Day" servings of dairy foods. Some examples include:
   - Breakfast: milk on cereal, yogurt, milk to drink, calcium fortified orange juice
   - Lunch: carton of milk, cheese on sandwich, string cheese, yogurt
   - Dinner: milk to drink, cottage cheese, cheese pizza, smoothie with yogurt
   - Snack: pudding, smoothie, ice cream or frozen yogurt
5. Next, bring the students' attention to the four kinds of milk—whole, 2%, 1% and fat-free. Introduce the percent (%) symbol and explain that the higher the percentage, the more fat there is in the milk. Ask if they know the similarities and differences between the milks.

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Materials Needed

- **A copy of the MyPlate poster**
- **A copy of the Where's the Dairy? work sheet for each student**
- **Answer key for Where's the Dairy? work sheet**
- **A small container or label for whole milk, 2% milk, 1% and fat-free (skim).**
- **Pictures of food labels of common foods from the dairy group (cheese, yogurt, ice cream, etc.)**
- **A container of vegetable shortening (like Crisco®)**
- **1/2 and 1 measuring teaspoons**
- **Four paper plates**

5. (continued)

Similarities	Differences
White in color	**Taste may vary due to the fat content**
Same amount of Nutrients:	**Fat content is different**
Calcium, Potassium, Iron, and Protein	**Calories (unit of energy) is different**

Note that even though the fat amount changes in milk you still get the same amount of calcium.

6. Pour a small sample of each milk and place it by the container. Ask the students to observe the milks and report on any differences in appearance.
7. Demonstrate the difference in the amount of fat in each type of milk. Using the shortening, ask the students to help you measure out the amount of fat in each 1 cup serving. Have them calculate how many grams of fat is in each type of milk. The conversion factor is 4 grams = 1 teaspoon. Whole milk (4% fat) = 2 tsp of fat (8 grams); 2% milk = 1 tsp (5 grams); 1% milk = 1/2 tsp (3 grams); Fat-free milk = 0 tsp (0 grams).
8. Ask the students what kind of milk they think is the healthiest and why is this their answer. Have them write their response in their health journal. Fat-free or 1% milk is healthier and better for your heart because it contains less fat.
9. Ask the students to predict if there will be any difference in the taste of the milk. Ask for a volunteer to taste each milk and describe any difference in taste. Fat determines the "mouth feel" and affects the taste. Depending on the type of milk they are used to drinking, responses may be that whole milk and 2% milk has a creamier or richer taste than 1% or fat-free.
10. Conclude the lesson by challenging the students to enjoy three servings of calcium rich dairy foods a day. Encourage them to try low-fat or fat-free milk to help keep their bodies healthy.

Outcome Goals

- Students will know one reason dairy foods are important for their bodies.
- Students will identify several types of dairy foods they could enjoy each day.
- Students will recognize that there are different fat contents of milk.

Extending the Lesson

- At your next classroom party, serve calcium rich snacks.
- Build your own yogurt parfaits (yogurt, fruit and granola cereal) or make a smoothie (blend yogurt, fresh or frozen fruit and 100% juice).
- In order to teach the children where milk comes from, plan a field trip to a local dairy farm or schedule a dairy farmer to come to the classroom to present to the children.

Acknowledgments/ Adapted From

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